

Anti-human Nicastrin Antibody

ORDERING INFORMATION

Catalog Number: AF5378

Lot Number: CCCR01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

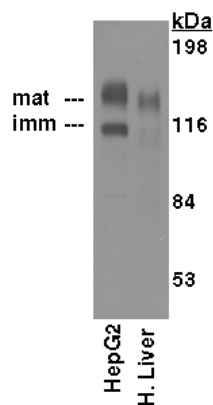
Reconstitution: sterile PBS

Specificity: human Nicastrin extracellular domain

Immunogen: CHO cell-derived rhNicastrin isoform 1 extracellular domain

Ig Type: sheep IgG

Applications: Western blot
Immunohistochemistry
Direct ELISA



Detection of Nicastrin with AF5378.

Cell and tissue lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL sheep anti-hNicastrin. Immature (imm) and mature (mat) species of Nicastrin are indicated.

Background

Nicastrin (NCT) is a 150 - 160 kDa member of the nicastrin family of proteins. It is a component of the aspartyl protease γ -secretase complex and serves to stabilize and direct γ -secretase components to proper positions in the plasma membrane. The γ -secretase complex mediates the cleavage of intramembrane proteins such as notch-1 and APP. Mature human nicastrin is a 676 amino acid type I transmembrane glycoprotein. It contains a 636 aa extracellular domain (aa 34 - 669) that shows a 58 aa sequence (aa 312 - 369) which interacts with γ -secretase substrates. There are multiple splice variants of NCT. One shows a deletion of aa 195 - 322 and 394 - 709, a second shows a 29 aa substitution for the C-terminal 604 aa and a third shows a deletion of aa 200 - 709 accompanied by an insertion of 33 aa after Leu30. Over aa 34 - 669, human NCT shares 90% aa identity with mouse NCT.

Preparation

Produced in sheep immunized with purified, CHO cell-derived, recombinant human Nicastrin isoform 1 extracellular domain (rhNicastrin; aa 34 - 669; Accession # Q92542). Human Nicastrin specific IgG was purified by human Nicastrin affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a **manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human Nicastrin in the applications listed below.

Applications

Western blot - An antibody concentration of 1.0 µg/mL is recommended.

Immunohistochemistry - This antibody will detect human Nicastrin in cells and tissues. The working dilution is 5 - 15 µg/mL. Antigen retrieval is recommended.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human Nicastrin. The detection limit for rhNicastrin is approximately 0.5 ng/well.

Optimal dilutions should be determined by each laboratory for each application.

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